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# The spectre of carbon border-adjustment measures

Navraj Singh Ghaleigh\* and David Rossati^

## I. INTRODUCTION: WHEN SUSTAINABLE DEVELOPMENT MEETS TRADE, MEETS CLIMATE LAW

Imagine that there had been a global financial crisis and that governments around the world had responded by intervening massively into their economies by way of stimulus packages which inter alia created “green jobs”. One instance of this imaginary response might have been the government of Ontario’s *Green Energy and Green Economy Act*,<sup>1</sup> which guaranteed that local producers supplied a minimum content of the technology to meet the province’s renewable-energy targets. Were such a provision to take effect, it could be foreseen that a leading trading partner of Canada, say Japan, might be concerned that it would discriminate against its own products contrary to Article III.4 of GATT (“like products of national origin”), Article 2.1 of the Trade Related Investment Measures (TRIMs) Agreement (national treatment rules, “NT”), and Article 3.1(b) of the Subsidies and Countervailing Measures (SCM) Agreement (prohibited subsidy). As it happens, no imagination is required for any of the above, as it forms the background to Japan’s recent complaint to the WTO, *Canada—Certain Measures Affecting the Renewable Energy Generation Sector, Request for Consultations by Japan*.<sup>2</sup>

\* Edinburgh Law School, <n.ghaleigh@ed.ac.uk>, <www.ssrn.com/author=742422>. This article builds on a paper given at the conference “Trade and Sustainable Development” held at Sungkyunkwan University on 9 October 2010. I am particularly grateful to the conference organiser and excellent discussant (respectively Professors Jae Ho Sung and Dae-Won Kim) and those colleagues and graduate students that contributed to the discussion on the day including Professors Zhang Guihong, Seung Wha Chang, Jee Hyung Lee, and Deok-Young Park. Thanks are also due to the anonymous referees for their improving remarks and my colleague Dr James Harrison for his comments on a late draft. Errors and omissions are the authors’ alone.

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<sup>1</sup> S.O. 2009, c.12 (Can. Ont.)

<sup>2</sup> WT/DS412/1, 16 September 2010.

Such disputes can be expected to be ever more common, not merely as the consequences of stimulus packages shake out, but as nations, predominantly developed nations, adopt even more ambitious national and regional climate-change regulatory frameworks. To the extent that such frameworks have an outward face, they will typically impinge on the complex legal relationships between the multilateral trading system and sustainable development. These reflect the diversity of competing claims between the interests of developing and developed economies, environmental integrity and material welfare, and the commercial values inherent in trade liberalization and non-commercial values embedded in environmental standards. Such claims play out in various forms, one being the common desire of developing nations to exploit the export opportunities available to them, an ambition facilitated by the aims and objectives of unimpeded trading. Importing developed states invariably set domestic environmental policies, and the goal of ensuring their effectiveness may drive importing states to require imported goods to comply with those same environmental standards. To do otherwise, so the argument goes, would undermine the domestic policy. The rejoinder is that conditioning market access on environmental grounds may deprive the developing economy of an export opportunity by stripping it of its international competitive advantage. Such are the basic arguments.

This paper focuses on a single subset of these arguments, namely those pertaining to the international legal regimes of climate change and the WTO. Even with this narrowing of the field, the range of legal relationships between the two are extensive. Consider the Kyoto Protocol's Clean Development Mechanism. By promoting international investment abroad, it necessarily interacts with international investment rules, and especially with TRIMs. The literature already acknowledges the possibility of such complexities, and their diversity. International climate change law and national policies consisting of so-called trade-related environmental measures (TREM) can potentially clash with obligations of various WTO Agreements. National technical and environmental requirements on imported products can violate both GATT and the agreement on Technical Barriers to Trade (TBT). Incentive schemes to promote renewables might raise doubts as to their compatibility with SCM. Moreover, measures affecting the two different levels of the carbon markets—spot and derivative—can have an effect on the services provided in that context, with the result of raising complaints under the General Agreement on Trade in Services (GATS).<sup>3</sup>

Given the range of potential interactions, this article addresses only a restricted number of issues drawn from both the familiar jurisprudence of the WTO and less-well-surveyed initiatives taken in the United States and European Union. The commonality of approach and use of similar policy tools—carbon border-adjustment measures<sup>4</sup> are discussed—is of utility to trade lawyers seeking

<sup>3</sup> For a thorough treatment of such issues, see Thomas Cottier, Olga Nartova and Sadeq Z. Bigdeli, eds., *International Trade Regulation and the Mitigation of Climate Change* (2009).

<sup>4</sup> Defined as “any fiscal measures which put into effect, in whole or in part, the destination principle (i.e. which enable exported products to be relieved of some or all of the tax charged in the exporting country in respect of similar domestic products sold to consumers on the home market and which enable imported products sold to consumers to be charged with some or all of the tax charged in the importing country in respect of similar domestic products)”. See *Working Party Report*, GATT Working Party on BTAs, L/3463, 2 December 1970.

to divine future conflict zones at the trade/climate nexus. That analysis is prefaced by discussions in Part II of the various meanings ascribed to the concept of sustainable development and its status in international law, followed by its place in the climate change regime. Part III starts with some basics of the trade/environment relationship before examining the general-exceptions clause of GATT XX and its elaboration in the relevant WTO disputes. Part IV considers this body of law in the context of the problem of “carbon leakage”—the phenomenon of mitigation policies in one territory leading to the displacement and growth of emissions in another—as concern grows within those polities undertaking or considering comprehensive climate-change policies and measures. Two particular polities, the United States and European Union, are examined, and the compatibility of their responses with WTO law is considered.

## II. THE CONCEPT OF SUSTAINABLE DEVELOPMENT IN THE CLIMATE CHANGE REGIME

There is something of motherhood-and-apple-pie about the concept of sustainable development. Who could take against the idea of promoting social and economic development for the world’s poorest whilst safeguarding the environment? As French notes, it “is one of those concepts that it is difficult to disagree with”.<sup>5</sup> Be that as it may, defining the parameters of the concept is not entirely elementary, whether in general international law or in the regime under present scrutiny, the international climate-change regime.

### 1. Sustainable Development—Meanings and Status

The animating assumption of sustainable development is not, upon reflection, particularly controversial. It goes beyond the somewhat unhelpful idea that the environment and development are “linked”, towards the stronger claim that “the issues themselves are inseparable in terms of the *causes*, their *dynamism* and, ultimately, their *resolution*”.<sup>6</sup> In the particular case of climate change, such a proposition can scarcely be contested. As far as *causes* are concerned, we know that the economic and industrial development in the modern era, say post-1750, has been driven by the exploitation of natural resources, initially in Great Britain, spreading to western Europe and then North America, and in recent decades to south and east Asia in particular. As fossil fuels have been extracted and combusted, applied to other resources such as iron ore, timber, and extracted minerals, the concentration of greenhouse gases in the atmosphere has increased. Put by the Intergovernmental Panel on Climate Change at 280 parts per million in 1750, the increase of atmospheric CO<sub>2</sub> concentrations to 379 ppm by 2005 is substantially a function of global industrialization.<sup>7</sup> That the rate of increase of GHG concentration has been highest in recent decades, when the traditional developed economies have been joined in the processes of industrialization by new entrants from the global South, indicates that the energizing force of development—its *dynamism*—has operated in much the same direction as that of environmental

<sup>5</sup> Duncan French, *Sustainable Development*, in, Research Handbook on International Environmental Law, 51 at 51 (Malgosia Fitzmaurice, David M. Ong and Panos Merkouris, eds., 2010).

<sup>6</sup> *Ibid.*, at 52. Emphasis added.

<sup>7</sup> See Patricia Birnie, Alan Boyle, and Catherine Redgwell, *International Law and the Environment* (3rd ed., 2009), 335, at 336.

degradation. As to *resolution*, it is not the case that development will necessarily lead to environmental degradation. Indeed, the new modes of development that are entailed by the transition to a low-carbon society—better-insulated buildings, energy efficiency measures, greater reliance of renewable-energy generation, mechanisms to avoid deforestation and forest degradation, and so on—have the potential to benefit all economies (whatever position they occupy on the continuum of development) and citizens (freeing them from both the adverse effects of climate change and resource scarcity). As McGoldrick notes: “The critical importance of sustainable development is that it is an integrationist principle ... The relative weighting of economic, environmental and human rights norms has become increasingly complex”.<sup>8</sup>

As to its presence in treaty law, sustainable development looms large in both the international climate regime and a broad range of other binding and non-binding texts. As regards the latter, the following all make mention of the notion of sustainable development: the 1994 Desertification Treaty, 1994 Energy Charter Treaty, 2000 Cartagena Protocol on Biodiversity, 2000 Constitutive Act of the African Union, 2003 UN Convention Against Corruption, and 2003 Framework Convention on Tobacco Control. This is a significant number and range of treaty instruments, to which could be added other bilateral and regional treaties, non-binding resolutions, “soft law” declarations, and indeed the case law of the ICJ.<sup>9</sup> For the purposes of the trade regime, the 1994 Uruguay Round agreements added a number of substantive environmental provisions, including environmental clauses into the WTO Agreement, the GATS, and the SPS, SCM, TRIPS, and Agriculture Agreements.<sup>10</sup> Most importantly for present purposes, the preamble to the WTO Agreement itself recognizes the “objective of sustainable development.”

The cumulative legal impact of these sources at the very least makes it *arguable* that sustainable development has become part of general international law. What, though, are the implications of this? The case can strongly be made that it introduces an interpretive obligation on tribunals to consider the requirements of sustainable development. As noted by the Appellate Body of the WTO in *Shrimp-Turtle I* (1998) when relying on the preambular reference to sustainable development, the concept “reflects the intentions of negotiators of the WTO Agreement ... we believe it must add colour, texture and shading to our interpretation of the agreements”.<sup>11</sup>

## 2. Sustainable Development in the Climate Change Regime

For the purposes of the climate regime itself, the matter is simultaneously both more straightforward and more complex. The straightforwardness comes from the fact that sustainable development finds repeated and prominent mention throughout both the UNFCCC and the Kyoto

<sup>8</sup> Cited by French, *supra* note 5, at 55.

<sup>9</sup> *Case Concerning the Gabčíkovo-Nagymaros Project*, 25 Sept. 1997, ICJ Reps., 7, at para. 141 [hereinafter “*Gabčíkovo-Nagymaros*”].

<sup>10</sup> For the history of the inclusion of the notion of sustainable development in these agreements, see Steve Charnovitz, *The WTO's Environmental Progress*, 10 JIEL 691 (2007).

<sup>11</sup> *United States – Import Prohibition of Shrimp and Shrimp Products*, Appellate Body Report WT/DS58/R, 6 November 1998, para. 153 [hereinafter *Shrimp-Turtle*].

Protocol. It has been noted that Article 2 (“Objective”) of the UNFCCC makes reference to sustainability in the context of economic growth, and as such subordinates it to little more than “an adjunct to economic growth”.<sup>12</sup> Indeed, the same could be said of the preamble, which seems to make an even weaker commitment to sustainable development by way of the recognition “that all countries, especially developing countries, need access to resources required to achieve sustainable social and economic development”.<sup>13</sup> Similar support for the concept can be garnered from the text of the Kyoto Protocol, although with similar qualifications as to its legal content, status, and implications. Protocol references to sustainability are found in Articles 2.1, 2.1.a.iii, 2.1.a.iv, 3.4, 10, and 12. Above all, Article 12 defines the purposes of the CDM as being, “to assist Parties not included in Annex I in achieving sustainable development and in contributing to the ultimate objective of the Convention”.

A stronger formulation is found in Article 3.4 (“Principles”):

The Parties have a right to, and should, promote sustainable development. Policies and measures to protect the climate system against human-induced change should be appropriate for the specific conditions of each Party and should be integrated with national development programmes, taking into account that economic development is essential for adopting measures to address climate change.

If we are to follow the argument that the legal consequences of sustainable development are reliant upon the elaboration of legal principles, these can certainly be found in the above provision. French argues that the principles of integration, sustainable use, equity, and the duty to co-operate, together “provide the basic framework for sustainable development ... the legal minimum”.<sup>14</sup> Although space precludes a full discussion, Article 3.4 of the UNFCCC explicitly makes provision for the notion of integrated environmental considerations being taken in economic planning, drawing thereby on Principle 4 of the Rio Declaration of 1992. Similarly, the final clause of Article 3.4 is a very strong nod in the direction of a notion of fairness or equity among nations, by taking into account their varied stages of development, and indeed “specific conditions”. This is not the precise form of (intergenerational) equity envisaged by Principle 3 of the Rio Declaration, although such considerations are present in the preambular text of the UNFCCC as well as Article 3.1. In any event, the search for an autonomous legal meaning of sustainable development in the UNFCCC and KP is likely to be in vain. Instead one might consider it in the context of the approaches taken by other international regimes and customary law—in our case WTO law. Under this wider perspective it is possible to grasp the conceptual controversy around sustainable development itself, reflected also by the International Court of Justice.<sup>15</sup>

<sup>12</sup> French, *supra* note 5, at 57.

<sup>13</sup> See also Art. 4(2)(a).

<sup>14</sup> French, *supra* note 5, at 58.

<sup>15</sup> *Gabčíkovo-Nagymaros*, *supra* note 9, at para. 140, in which the Court refers to sustainable development as a “concept” rather than a principle.

### III. THE MEETING OF TRADE AND CLIMATE CHANGE, BY WAY OF SHRIMP-TURTLE

#### 1. Basics of Trade and Environment

From a sustainable development perspective, the multilateral trading regime presents a challenge. A nation that implements strict domestic environmental regulations to promote sustainable development may find a tension between them and elementary rules of WTO law. Such a nation may, as mentioned earlier, take the view that unimpeded imports from a trading partner that does not have similarly robust environmental regulations will render its own regulatory regime nugatory. Accordingly, it may adopt trade measures that would restrict market access to such goods on the basis that they are unsustainable, but such an approach might very well be precluded by the WTO agreements on the basis of the Most-Favoured Nation (MFN) principle (GATT I), the principle of national treatment (GATT III), or GATT IX, which prohibits quantitative restrictions. Such trade/environmental dilemmas are far from unknown.<sup>16</sup> Indeed, the foundational agreement of the WTO, the Marrakesh Agreement (1994), recognizes in its preamble that increased production should allow

for the optimal use of the world's resources in accordance with the objective of sustainable development, seeking both to protect and preserve the environment and to enhance the means for doing so in a manner consistent with their respective needs and concerns at different levels of economic development.

This precipitated the WTO undertaking a pathway to institutional and conceptual development that has culminated in recent decisions under the Dispute Settlement Understanding (DSU) related to the environment. In 1994 WTO Members constituted a Committee on Trade and Environment (CTE) with the aim of identifying the relationship between the two areas and making recommendations to the Ministerial Conferences.<sup>17</sup> More detailed terms of reference for the CTE were agreed in 2001 during the start of the Doha round, when the policy concept of “mutual supportiveness” between environment and trade in international negotiations was developed.<sup>18</sup> Whilst the stalemate in negotiations under the Doha round has not led to substantial results, the WTO Secretariat has nonetheless engaged in liaison activities with administrative bodies of other treaties and in further studies on the issue.<sup>19</sup> From the first, then, as well as since, the WTO recognized both the possibility of a clash between trade and environmental concerns, and that untrammelled trade could damage the environment. These are to be balanced

<sup>16</sup> The legal trade/environment scholarly literature is substantial. For a good synoptic treatment, see Daniel Bodansky and Jessica C Lawrence, *Trade and Environment*, in *The Oxford Handbook of International Trade Law*, 505-538 (Daniel Bethlehem, Donald McRae, Rodney Neufeld and Isabelle Van Damme, eds., 2009) and the references therein. A particularly good monographic analysis is found in Erich Vranes, *Trade and the Environment: Fundamental Issues in International Law, WTO Law and Legal Theory* (2009).

<sup>17</sup> *Trade and Environment*, GATT 1947 Ministerial Decision, 14 April 1994, *reprinted in* (1994) 33 ILM 1267.

<sup>18</sup> Ministerial Declaration, WT/MIN(01)/DEC/1, 20 November 2001, paragraphs 6 and 31. The declaration highlighted three issues on which the CTE should base its activity, namely the relationship between WTO provisions and multilateral environmental agreements (MEAs), the institutional relationships between the WTO and MEAs secretariats, and the reduction or elimination of tariff and non-tariff barriers for environmental goods and services.

<sup>19</sup> Note however the criticisms of Charnovitz, *supra* note 10.

against the standard argument that free trade itself has a sustainability dimension, favouring those economies that produce a given good most efficiently—for example, that it is more sustainable, not just cheaper for everyone, for oranges to be grown in sunny Spain or Israel and traded with Scotland than production to be housed in energy-intensive Scottish greenhouses, even taking shipping into account. Similarly with environmentally sound technologies (EST). Trade liberalization would encourage the dissemination and deployment of EST more fully than a world in which high tariffs were in place for solar PV, wind turbines, and the component parts of the carbon-capture-and-storage technology chain.

The nub of the matter, however, is the permissibility of TREMs from the perspective of WTO law. Can economies that apply high domestic environmental standards (typically Western ones) restrict market access to goods from other economies with lower environmental standards (typically those in the global South)? Again, this is not an issue that been gone unconsidered by the UNFCCC, which states that:

The Parties should cooperate to promote a supportive and *open international economic system* that would lead to sustainable economic growth and development in all Parties, particularly developing country Parties, thus enabling them better to address the problems of climate change. Measures taken to combat climate change, including unilateral ones, *should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade*.<sup>20</sup>

This provision can be seen as an endorsement of the orthodoxy of trade liberalization—that an “open international economic system” is the best means of economic development—and that, allied with an attentiveness to sustainability, it can better enable parties to the agreement to deal with climate change. The final sentence is salutary, warning against trade measures that intentionally or otherwise operate as restrictions on international trade.

## 2. GATT XX and General Exceptions: from Shrimps to Tyres

Any such trade measures will most likely necessitate consideration of Article XX of GATT and its twin provision in Article XIV of GATS.<sup>21</sup> Deriving as it does from the 1947 text, it is not surprising that it makes no specific reference to the environment. Indeed, its title is “General Exceptions”, which is precisely what it provides for—a series of exceptions to measures which would ordinarily be prohibited under GATT rules. These include, but are not restricted to, measures which are “necessary to protect human, animal or plant life or health”,<sup>22</sup> or measures “relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption”.<sup>23</sup> These two exceptions are com-

<sup>20</sup> Article 3.5, emphasis added.

<sup>21</sup> One general exception under the GATT Article XX(g) is not replicated in the GATS. See also Robert Howse and Antonia L. Eliason, *Domestic and International Strategies to Address Climate Change: an Overview of the WTO Legal Issues*, in Cottier, Nartova and Bigdeli, eds., supra note 3, at 61.

<sup>22</sup> Article XX (b) GATT.

<sup>23</sup> Article XX (g) GATT.



monly understood to allow the adoption of TREMs under the GATT. A trade restriction based on environmental grounds can follow under paragraph (b) or (g). Given the different wording of the two provisions, different tests apply—developed in the WTO’s jurisprudence—pertaining to the compatibility of measures with the Article. As discussed below, this has consequences for the design of border-tax adjustments (BTAs) adopted on climate-change grounds. However, before a DSU panel, parties may not adopt such measures under GATT XX without justification. As the chapeau states, any such general exceptions are “subject to the requirement that such measures are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade”.<sup>24</sup> As noted in the introduction, whilst climate-related measures can potentially impinge on obligations under the TBT, its application in the case of BTAs is somewhat marginal, given that an import tax is unlikely to amount to a technical standard or requirement of production.

Accordingly, the general exception as articulated in GATT XX would appear to permit parties to adopt trade-restrictive measures that are necessary for the protection of the environment, or that are related to the protection of the environment. Such measures ought nonetheless to comply with basic principles of the WTO, such as non-discrimination, and will require a party to adopt domestic environmental measures if it wishes to prohibit the importation of “environmentally unfriendly” products, so as to avoid the prospect of closing the borders to foreign polluting goods whilst domestically produced goods continue to have such qualities. Without delving into the entirety of the jurisprudential evolution on the interpretation of the article,<sup>25</sup> the key operationalization of the Article XX exception can be seen in the Appellate Body’s reasoning in the *Shrimp-Turtle* and *Brazil-Tyres* disputes. *Shrimp-Turtle* was amongst the earlier disputes adjudicated upon under the then new WTO dispute-resolution arrangements, and following the disappointing GATT panel decisions in the *Tuna-Dolphin* dispute,<sup>26</sup> it presented the opportunity for the new institutional arrangements to display both their effectiveness and a newfound sensitivity for environmental considerations under GATT XX. The central issue at stake—whether a nation may impose unilateral measures which in effect apply their own environmental standards extraterritorially and thereby prohibit the import non-complying goods—has clear parallels with national climate-standard provisions, which will be discussed in the section below.

The facts of the case are sufficiently well known not to require repetition here, but the Appellate Body’s three-step test is of importance. Firstly, in order for a measure to come under GATT XX, one must determine whether the policy pursued falls within the range of policies and motives enumerated in Article XX(a)-(j). In *Shrimp-Turtle*, the Appellate Body took a rather generous approach as to whether the US measure concerned the conservation of “exhaustible

<sup>24</sup> Article XX GATT, chapeau.

<sup>25</sup> See for instance, Nathalie Bernasconi-Osterwalder, et al., *Environment and Trade: A Guide to WTO Jurisprudence* 76-147 (2006).

<sup>26</sup> *US – Restrictions on Imports of Tuna (Tuna-Dolphin)*, Panel Report DS21/R – 39S/155, 3 September 1991 and *US – Restrictions on Imports of Tuna (Tuna-Dolphin II)*, Panel Report DS29/R, 16 June 1994. Neither report was adopted.

natural resources” within the meaning of Article XX(g).<sup>27</sup> Giving the term an “evolutionary” meaning,<sup>28</sup> noting the preambular reference to sustainable development, and seeking guidance from various modern international conventions which make references to natural resources as including both living and non-living resources, the Appellate Body concluded that sea-turtles constituted exhaustible natural resources pursuant to Article XX(g). Although the resource did not fall exclusively within the jurisdiction of the United States, the Appellate Body held that there was a “sufficient nexus” between the United States and sea-turtles, an attenuation that may have significance for future climate-related disputes. A similar test was deployed in *US-Gasoline*, in which “clean air” was held to be a resource for the purposes of Article XX(g).<sup>29</sup> The second limb of the test required that the measure at issue must be either “necessary” for, or “relating to”, the pursuit of the specific policy. The Appellate Body observed that “the means and ends relationship between Section 609 of the [Endangered Species Act 1989] and the legitimate policy of conserving an exhaustible, and, in fact, endangered species, is observably a close and real one”.<sup>30</sup> The third and final limb of the test requires that the measure be applied in conformity with the chapeau of Article XX, which is intended to prevent the abuse of the “limited and conditional” exceptions under which a measure might be preliminarily justified under the subparagraphs.<sup>31</sup> The chapeau operates as a balancing principle, mediating between the rights of a member to invoke an exception and its obligation to respect the rights of other members. It was here that the United States came unstuck, as the decision of the Appellate Body agreed (although on much narrower grounds) with the panel that the application of the US measure was “arbitrary and unjustifiable”.<sup>32</sup>

For the purposes of the climate change/trade relationship, there are two points of importance to take away from the *Shrimp-Turtle* dispute. Firstly, unilateral measures to protect the environment are not per se inconsistent with the GATT. The conditioning of access to domestic markets on the basis of other members’ compliance with, or adoption of, a policy unilaterally prescribed by the importing country is capable of justification under Article XX GATT. In contradistinction with the early *Tuna-Dolphin* dispute, unilateral measures to protect the environment beyond national jurisdictions are now accepted as permissible, subject to qualifications. Foremost amongst these is that unilateral measures are justified only if they are tailored (as those of the United States were not) to meet due-process concerns, take into account the conditions in other member states, and the importing member has sought in good faith a multilateral solution before resorting to unilateral action. Secondly, the Appellate Body’s consideration of relevant multilateral environmental agreements (MEAs) in order to ascertain the meaning of the term “exhaustible natural resources”

<sup>27</sup> *Shrimp-Turtle*, supra note 11, para. 126.

<sup>28</sup> Ibid., para. 130.

<sup>29</sup> United States – Standards for Reformulated and Conventional Gasoline, Appellate Body Report (1996) WT/DS2/AB/R, 26 April 1996.

<sup>30</sup> Ibid., para. 141.

<sup>31</sup> Ibid., para. 157.

<sup>32</sup> However, the amended US measure was found to be compatible with Article XX in the Article 21.5 proceedings brought by Malaysia – see United States – Import Prohibition of Certain Shrimp and Shrimp Products, Appellate Body Report WT/DS58/AB/RW, 22 October 2001.

confirmed the relevance of other international agreements for the interpretation of WTO law, thereby setting an important precedent for WTO dispute-resolution panels to acknowledge the mutually beneficial relationship between the WTO legal framework and MEAs. The matter is not definitively resolved, and debate continues on the exact circumstances in which WTO adjudication bodies are under an obligation to take into account other rules of international law, with the subsequent case law taking both expansive and relatively restricted approaches to the interpretation of WTO law in the light of other rules of international law.<sup>33</sup>

Another unsolved issue which does not stem from, but is related to *Shrimp-Turtle* and the “mutual supportiveness” goal between trade and environment within the WTO, concerns the choice for proper jurisdiction in international law for conflicts between the two areas. In other words, to what extent can a WTO panel be deemed the competent body to adjudicate an MEA/WTO conflict, and why could such dispute not be dealt with under MEA dispute-resolution procedures? On this issue, Boyle suggests that there would be “little difficulty” for a Panel to follow an extensive interpretation of the categories in Article XX so as to encompass every measure taken pursuant to an MEA.<sup>34</sup> As is argued below, this may well occur in the future. However that view still does not take into account the issue that, as Pauwelyn notes, a panel has several implied jurisdictional powers, including the one of deciding “whether one should *refrain* from exercising substantive jurisdiction that has been validly established”.<sup>35</sup>

*Shrimp-Turtle* is a milestone in the WTO’s environmental jurisprudence. However, the general exception applied in the case relates only to Article XX’s paragraph (g). The Appellate Body could not there provide an interpretation of the other exception related to the environment, Article XX (b), exempting measures “necessary to protect human, animal or plant life or health”. Note in the first instance the concept of necessity under paragraph (b), in contrast to the “relating to” requirement of paragraph (g). Both the WTO case law and attendant literature have weighed in heavily on the concept of necessity without clearing up all the ambiguities contained in it. Without providing a complete analysis of the jurisprudence on this issue,<sup>36</sup> a sense of Article XX (b) can be gleaned by reference to the latest pertinent Appellate Body decision: *Brazil-Tyres*.<sup>37</sup> This dispute involved a claim made by the European Community against a Brazilian import ban on retreaded tyres. Underpinning this policy was the claim that the accumulation of waste tyres in landfill sites would result in an increased risk of harm to the environment and human

<sup>33</sup> See generally Joost Pauwelyn, *Conflicts of Norms in Public International Law: How WTO Law Relates to other Rules of International Law* (2003), Margaret Young, *The WTO’s Use of Relevant Rules of International Law: An Analysis of the Biotech Case* 56 ICLQ 907 (2007) and Benn McGrady, *Fragmentation of International Law or Systemic Integration of Treaty Regimes* 42 J World Trade 589 (2008).

<sup>34</sup> Alan Boyle, *The Relationship Between International Environmental Law and Other Branches of International Law*, in *The Oxford Handbook of International Environmental Law*, 125, at 138 (Daniel Bodansky, Jutta Brunée and Ellen Hey, eds., 2008).

<sup>35</sup> Pauwelyn, *supra* note 33, at 448.

<sup>36</sup> See Bernasconi-Osterwalder et al., *supra* note 26, 156-184; and Peter Van den Bossche, *The Law and Policy of the World Trade Organization*, 621-651 (2 ed., 2008).

<sup>37</sup> *Brazil - Measures Affecting Imports Of Retreaded Tyres*, Appellate Body Rep., WT/DS332/AB/R, 3 December 2007 [hereinafter “*Brazil-Tyres*”].

health. The case is noteworthy for two reasons: firstly, the Appellate Body further clarified the interpretation of necessity in the GATT's exception, recognizing that, being different from the expression in paragraph (g), "necessary" could not mean "indispensable", but rather that the policy, while trade-restrictive, meaningfully contributed to the achievement of its own aims.<sup>38</sup> Furthermore, the Appellate Body specified that the "meaningfulness" of a measure could be assessed either qualitatively or quantitatively, as long as it makes a material contribution to its stated purpose. In other words, a Panel will not necessarily have to rely on a scientific/statistical assessment of how the adopted measure has, during a certain time-span, achieved its aim. It could also rely on deductive reasoning to gauge how, according to the measure's relevant features, it could *potentially* and meaningfully contribute to its aim. It is also noteworthy that on this specific issue the Appellate Body refers to climate change as an analogous case:

the results obtained from certain actions—for instance, measures adopted in order to attenuate global warming and climate change, or certain preventive actions to reduce the incidence of diseases that may manifest themselves only after a certain period of time—can only be evaluated with the benefit of time.<sup>39</sup>

The Appellate Body seems to be hinting at a possible future application of a BTA's necessity test, recognizing as it does the eligibility of a qualitative approach to measuring whether a BTA can potentially contribute to the aim of making foreign products as "climate friendly" as like domestic ones. This does not mean, however, that satisfying such a test will be an easy task. That would depend on the specifics of the BTA.

The second clarification regards the interpretation of the chapeau of Article XX, concerning the second step that a measure needs to satisfy. The measure must not be "applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination". The Appellate Body rejected the finding of the Panel, stating that discrimination is unjustifiable when it does not bear any relationship with the "legitimate objective" of the measure.<sup>40</sup> On this point Davies notes that the Appellate Body incurred the risk of blurring the boundary between the primary test ("necessity" under paragraph (b)) and the chapeau requirements, given the fact that both consider the rationale of the adopted measure.<sup>41</sup> Although it can be argued that the two assessments were different, as they tested the measure in two different contexts,<sup>42</sup> this may not be sufficient to avoid such an interpretative impasse because it is not guaranteed that future disputes will involve external laws or cases that could affect the way a measure is applied. By making Article XX's "two-tier" approach a single one—in the case of Article XX(b)—*Brazil-Tyres* seems to make it easier to allow a measure under Article XX of GATT, and it is likely that this interpretation

<sup>38</sup> Ibid., at paragraph 210.

<sup>39</sup> Ibid., at paragraph 151.

<sup>40</sup> Ibid., at paragraph 228.

<sup>41</sup> Arwel Davies, *Interpreting the GATT Article XX in Light of the "New" Approach in Brazil-Tyres*, 43 *Journal of World Trade Law* 507-540, at 522 (2009).

<sup>42</sup> Ibid., at 530-1. While the "necessity" test consisted of an impact analysis of the import ban alone, the chapeau test was related to an exception adopted by Brazil after a Mercosur case found that the import ban was infringing Mercosur obligations.

could be extended to other WTO Agreements that rely on that provision. However, it remains somewhat unpredictable how a future Panel would address the question. Further guidance may be offered following the recent Panel request brought by Canada against the European Union for its import ban on seal products.<sup>43</sup>

#### IV. NATIONAL CLIMATE CHANGE REGULATORY FRAMEWORKS AND THEIR IMPACT ON TRADE RULES

Moving on from WTO law and its environmental jurisprudence, we turn now to how that body of law is implicated by the climate-change policies of two of the leading global actors, the European Union and the United States. Whilst both have, famously, taken very different domestic paths to addressing climate change<sup>44</sup>—with the European Union commonly characterized as a leader<sup>45</sup> and the United States as a laggard—there remain some notable similarities in approach.<sup>46</sup> These shared approaches are not found in the internal aspects of the various approaches to climate-change mitigation, such as carbon markets, but rather in their external dimensions, in particular the approach to carbon leakage. It should be noted that much of what follows, in so far as it pertains to the United States, is somewhat speculative, in the sense that the United States, at the time of writing, has yet to adopt a comprehensive domestic climate-change framework. Nonetheless, the attempts to date, and in particular the abortive Waxman-Markey Bill, give a strong sense of what any future US regime may look like.

##### 1. The Problem of Carbon Leakage

The problem of carbon leakage is one well known to international and national climate policy. In the context of the CDM, in which it is well developed, it captures the idea of an increase in emissions outside the project boundary that occurs as a consequence of the project activity's implementation. That understanding has been formalized in a COP decision as follows:

Leakage is defined as the net change of anthropogenic emissions by sources of greenhouse gases which occurs outside the project boundary, and which is measurable and attributable to the CDM project activity.<sup>47</sup>

<sup>43</sup> WTO dispute DS400 started on 2 November 2009.

<sup>44</sup> Navraj Singh Ghaleigh, *Anti-Americanism and the Environment* in, *Anti-Americanism*, 139-162 (Brendon O'Connor, ed., 2007).

<sup>45</sup> Navraj Singh Ghaleigh, *Emissions Trading Before the ECJ: Market Making in Luxembourg*, in *Legal Aspects of Carbon Trading: Kyoto, Copenhagen and Beyond*, 367-390 (David Freestone and Charlotte Streck, eds., 2009).

<sup>46</sup> See generally, Kathryn Harrison and Lisa McIntosh Sundstrom, *Global Commons, Domestic Decisions: The Comparative Politics of Climate Change* (2010).

<sup>47</sup> 3/CMP.1, Annex, paragraph 51.

The CDM Executive Board has elaborated upon that definition in the following terms:

In an operational context, the terms “measurable” and “attributable” in paragraph 51 of the CDM modalities and procedures should be read as “which can be measured” and “directly attributable”, respectively.<sup>48</sup>

Where leakage does occur, the CDM rules require that equivalent emissions must be deducted from the emission reductions generated by the relevant project activity, and that Certified Emission Reductions (CERs) are issued only in respect of the *net reduction* in emissions brought about by the project, once leakage had been taken into account.<sup>49</sup> From the perspective of those economies, such as the European Union, that have imposed significant emission-reduction obligations on their industrial sectors, carbon leakage poses a variety of risks. As discussed in subsection 3 of this Part below, consideration of leakage, in the contexts of both competitiveness and environmental integrity, has animated and substantially driven the European Union’s own policies. The impact of similar concerns has arguably been even greater in US debates on domestic climate change action. The Waxman-Markey Bill, discussed in the following subsection, made repeated reference to the concept<sup>50</sup> and provided for “leakage prevention activities”,<sup>51</sup> measures to encourage the avoidance of leakage,<sup>52</sup> and standards to monitor and account for leakage.<sup>53</sup>

Consider the following “factional” scenario. The European Union imposes on all its member states an obligation to reduce their industrial greenhouse-gas emissions by 20 per cent within a decade or so. For a member like Poland, this is particularly demanding, as it has very few energy resources and alternatives other than coal combustion. Moreover, given the long-running impacts of the emergence from the post-Soviet era, Poland lacks the industrial and economic infrastructure to re-engineer its economy in the necessary fashion. The relatively low Polish GDP and standard of living for many of its citizens makes this task even harder. Even if a transition to a low-carbon economy were possible for Poland, and such a path were chosen, the short-to-medium-term impacts would be considerable in terms of traditional (dirty) industries and would be likely to have significant consequences for unemployment, as the costs of the transition—new plant, further mechanisms, new processes, etc.—began to bite. Consider further the very real possibility that the new cost-profile of, say, Polish steel manufacturing, makes the steel of its neighbour Ukraine (not an EU member state and, as such, unregulated) highly attractive to the international market. Steel that was formerly manufactured in Poland is now manufactured in the Ukraine, at a lower cost and higher emissions. This state of affairs would result in higher aggregate emissions, and as such represent an environmental disbenefit. Moreover, it would

<sup>48</sup> EB 5, Annex 3, paragraph 10(d).

<sup>49</sup> “Leakage” in the context of afforestation/reforestation has a differing, but similar, definition – 5/CMP.1, Annex, paragraph 1(e).

<sup>50</sup> Defined in section 762 of that bill, *infra* note 56 as “any substantial increase in greenhouse gas emissions by industrial entities located in other countries if such increase is caused by an incremental cost of production increase in the United States resulting from the implementation of this [provision].”

<sup>51</sup> *Ibid*, section 751.

<sup>52</sup> *Ibid*, section 754(d)(6)(C).

<sup>53</sup> *Ibid*, section 754(d).

entail a loss of jobs in territories such as Poland which operate under a demanding climate-change regime. This in turn would undermine domestic support for the climate-change regime, and, in the case of the European Union, undermine support for the entire political structure, which, as is well known, is rather shaky in Poland.

Accordingly, carbon leakage is a considerable problem for those polities that adopt demanding emission-reduction targets. Admittedly, the problem will not rear its head in all industrial sectors—some, such as electricity, are reasonably immune from leakage, as electricity is not highly transportable beyond relatively short distances. Rather, leakage is a risk in certain industrial subsectors, most notably cement, ferrous metals, nitrogen fertilisers, and pulp and paper.

## 2. Carbon Border-Adjustment Tariffs—US Proposals

The border-adjustment measure for exposed sectors is emerging as the preferred policy-tool to address carbon leakage (in conjunction with conditional free allocation of emission allowances, state aid, and government-led sectoral agreements). Carbon BTAs require the payment of a border tax, or the surrender of emission allowances equivalent to the tax, by importers of goods produced under less demanding climate-related constraints than those in force domestically. The rationales for BTAs are numerous and cumulative: to incentivize other countries to adopt more demanding climate policies; to incentivize producers in countries not subject to carbon pricing to reduce their emissions; to reassure domestic audiences regarding the competitiveness of their own industries; to avoid leakage or the relocation of carbon-intensive industries; and to avoid free allocation and facilitate auctioning.

These are not simply thought-experiments. In the United States carbon border-adjustment measures have found form in a number of legislative proposals of which the Waxman-Markey Bill (the American Clean Energy and Security Bill 2009) is only the most recent. None of the bills considered below have gained the approval of the US Senate, and nor are they likely to as long as the Berlin Mandate remains in place. Nonetheless, the character of measures considered by the federal legislature is noteworthy, if only for their family resemblance to those undertaken by the European Union. In 2007 the Bingaman-Specter Climate Change Bill (the Low Carbon Economy Act 2007)<sup>54</sup> introduced an “international reserve allowance requirement”, the purpose of which was to “ensure that greenhouse gas emissions occurring outside the United States do not undermine the objectives of the United States to address global climate change [and] to encourage effective international action to achieve those objectives.”<sup>55</sup> To this end, from 2019 the President would determine whether major trading partners were undertaking “comparable action”. If not, he would require that a compensating quantity of allowances be purchased from

<sup>54</sup> S.1766, 110<sup>th</sup> Congress, 2007-8. See generally <[http://energy.senate.gov/public/index.cfm?FuseAction=IssueItems.View&IssueItem\\_ID=e6a0eeb8-4fda-437c-8ce3-f8b77d28d32e](http://energy.senate.gov/public/index.cfm?FuseAction=IssueItems.View&IssueItem_ID=e6a0eeb8-4fda-437c-8ce3-f8b77d28d32e)> visited on 2 March 2011. The Bill also provided for national GHG emission reduction targets, a cap and trade scheme and incentives for CCS and technology development. Bingaman was, and at the time of writing still is, the Chairman of the US Senate’s Committee on Energy and Natural Resources.

<sup>55</sup> Section 502.

a special international reserve allowance pool, for all greenhouse-gas-intensive “primary products” imported from an offending country. All proceeds from the sale of international reserve allowances would be deposited into a special fund for expenditure on international technology development.<sup>56</sup> This approach was broadly followed in the following year’s Lieberman-Warner Bill (Climate Security Bill 2008),<sup>57</sup> which proposed a requirement for the purchase of “international reserve allowances” to cover goods imported from countries that had not taken adequate mitigation steps.<sup>58</sup>

As is well known, both these Bush-era bills met with very little success. Whilst the Waxman-Markey Bill at least reached the Committee stage of the Congressional legislative process, none of its predecessors did. This makes the Waxman-Markey Bill the most successful of the climate change proposals yet moved, approved as it was by the US House of Representatives.<sup>59</sup> The bill is commonly regarded as more comprehensive and ambitious than its predecessors. Whilst this is reflected in its wide-ranging provisions on clean energy,<sup>60</sup> energy efficiency,<sup>61</sup> global warming reduction,<sup>62</sup> transitioning to a “clean energy economy”,<sup>63</sup> and forestry and agricultural offsets,<sup>64</sup> the same is true for its provisions on BTAs. Located in Title IV, subpart 2 (“Promoting international reductions in industrial emissions”), the “international reserve allowance program” of section 768 bore the imprints of both an iterative legislative process and greater and more serious engagement with international climate change policy.

In term of the coverage of goods, Waxman-Markey, as introduced, spoke in the same terms as the earlier bills, namely of “primary products”.<sup>65</sup> By the time the bill was passed by the House, a different term, “covered good”, was used. Defined in section 762, this is a good that “corresponds to an eligible industrial sector” or is a “manufactured item for consumption”. This would appear to be a more nuanced definition than “primary products”, relying as it does on categories contained in the North American Industrial Classification System of 2002 and including finished goods (although the challenges that these would raise for the purposes of determining the country

<sup>56</sup> Ibid.

<sup>57</sup> S.2191, 110<sup>th</sup> Congress, 2007-8.

<sup>58</sup> Section 6006. For an analysis of the Lieberman-Warner Bill’s consistency with WTO law, see Paul-Erik Veel, *Carbon Tariffs and the WTO: An Evaluation of Feasible Policies*, 12(3) J. of Int’l Econ. L. 749-800 (2009).

<sup>59</sup> H.R.2454, 111<sup>th</sup> Congress, 2009-10.

<sup>60</sup> Title I proposed, inter alia, a 20 per cent federal renewable energy target by 2020, smart grid development and mandatory CCS by 2025.

<sup>61</sup> Title II proposed, inter alia, a series of energy efficiency standards for buildings, lighting, appliances and heavy vehicles.

<sup>62</sup> Title III and VII proposed, inter alia, a national cap and trade scheme with 17 per cent emission reduction targets by 2020 and 83 per cent by 2050 (both against a 2000 baseline year, not the Kyoto Protocol’s 1990).

<sup>63</sup> Title IV proposed, inter alia, a series of funding mechanisms to offset the costs of the Bill to low income earners, offset energy price rises and retrain displaced workers.

<sup>64</sup> Title V proposed, inter alia, domestic agricultural and forestry offset programs.

<sup>65</sup> Defined in Lieberman-Warner, section 6001 as “iron, steel, aluminum, cement, bulk paper or glass” or other manufactured products with comparable emissions.



of origin of complex finished goods would presumably be great). As regards the countries to which BTAs might be relevant, the earlier bills made reference to countries that had not taken “comparable action” or were exempt by virtue of low levels of development of emissions. Again, the version of Waxman-Markey as presented to the Senate included a slightly different test from earlier bills, with the notion of “comparable action” being replaced by the need for compliance with a set of standards, namely:

(1) [that a] country is party to an international agreement to which the United States is a party that includes nationally enforceable and economy-wide greenhouse gas emissions reduction commitments ... at least as stringent as that of the United States; (2) the country is party to a bilateral or multilateral emission reduction agreement for that sector ... (3) the country has an annual energy or greenhouse gas intensity ... for that sector that is equal or less than the United States.<sup>66</sup>

Given the death of the bill, and especially following the midterm elections of 2010, there is no immediate prospect of the operationalization of such measures in the United States. Moreover, when considering Waxman-Markey, it should be borne in mind that its BTA provisions would not have been automatically invoked, but rather implemented only with Presidential authority; and they were deliberately drafted broadly, to give the executive very considerable discretion in their operationalization. In political terms, they were supported, somewhat predictably, by labour interests, which wanted them to have effect automatically as from 2012. Most Democratic senators, however, opposed the measures in principle, consistent with what has been termed an Obama presidency “fundamental shift in the principled ideas of the congressional leadership.”<sup>67</sup> Given that approach, the measures can be read as substantially symbolic, inserted to appease labour interests. Such gestures, demonstrating a heightened sensitivity to electoral incentives, are far from unknown in US climate politics, which has consistently shown deference to organized interests of varying political stripes.<sup>68</sup>

### 3. Carbon Border-Tax Adjustments—EU Scheme

As with its broader approach to GHG emissions, the European Union’s regime pertaining to BTA is considerably more detailed, and legally settled, than that of the United States. The focal point of the European Union’s “integrated approach” to climate and energy policy was completed in June 2009, when four complementary legislative instruments were concluded in the form of the “climate and energy package”. The revised EU ETS<sup>69</sup> is at the heart of the package,<sup>70</sup> and is

<sup>66</sup> Section 767.

<sup>67</sup> Kathryn Harrison, *The United States As Outlier: Economic and Institutional Challenges to US Climate Policy*, in Harrison and Sundstrom, *supra* note 46, 67 at 95.

<sup>68</sup> *Ibid.*

<sup>69</sup> Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC amended by: Directive 2004/101/EC of 27 October 2004 L 338 18 13.11.2004, Directive 2008/101/EC of 19 November 2008 L 8 3 13.1.2009, Regulation (EC) No 219/2009 of 11 March 2009 L 87 109 31.3.2009, Directive 2009/29/EC of 23 April 2009 L 140 63 5.6.2009 [hereinafter “EU ETS”, “the Directive” or “the Scheme”].

<sup>70</sup> Council Directive 2009/29/EC, Amending Directive 2003/87/EC so as to Improve and Extend the Greenhouse Gas Emission Allowance Trading Scheme of the Community, available at <<http://eur-lex.europa.eu/>

supplemented by an “effort-sharing scheme” which aims to reduce GHG emissions from sectors not covered by the EU ETS<sup>71</sup> through binding national targets for renewable energy<sup>72</sup> and a legal framework to promote the development of CCS.<sup>73</sup> These instruments provide the legal pathway for the EU member states to collectively reduce the European Union’s greenhouse gas emissions by at least 20 per cent by 2020 (against a 1990 baseline), to ensure that at least 20 per cent of the European Union’s energy consumption is met from renewable sources, and to reduce primary energy use by 20 per cent (compared with projected levels) by energy-efficiency measures. The package is of course intimately linked with the UNFCCC, but equally importantly for our purposes, the WTO. The long-standing position of the European Union has been that the best method to address leakage is a comprehensive climate-change agreement under the auspices of the UNFCCC, but in the absence of such an agreement (which the Copenhagen COP failed to achieve and which its Cancun successor took only the first tentative steps towards realizing), “appropriate measures” may be taken to address leakage.

The European Union has invested considerable political energy in constructing a legal regime for addressing climate change. Its climate and energy package is described by the World Bank as “the most concrete of [the] national, regional and international actions on climate change”.<sup>74</sup> Whilst it is an open question whether the complex and comprehensive arrangements of the European Union have had the desired effect in terms of strengthening the European Union’s hand in international climate-change negotiations, there can be no doubt that the edifice’s foundation, the EU ETS,<sup>75</sup> is a regulatory instrument of global dimensions, and within the sphere of the global carbon market it is very much its largest single element. The EU ETS’s share of the global carbon market in 2008 was approximately \$92 billion, from a total transacted value of \$126 billion. The second largest element of the market is the secondary market for CERs, whose 2008 transactions amounted to \$26 billion. As one of us has noted elsewhere:

The EU ETS’s trading volumes dwarf those of its rivals—the voluntary Chicago Climate Exchange, the New South Wales ETS, the New Zealand ETS and the fledgling Japanese scheme—none of

LexUriServ/LexUriServ.do?uri=OJ:L:2009:140:0063:0087:en:PDF>. For a comprehensive analysis of the package, on which this subsection draws, see Elisa Morgera, Kati Kulovesi, and Miquel Muñoz, *Environmental Integration and the Multifaceted International Dimensions of EU Law: Unpacking the EU’s 2009 Climate and Energy Package*, University of Edinburgh School of Law Working Paper No. 2010/38 (forthcoming in *Common Market Law Review*).

<sup>71</sup> Council Decision 406/2009/EC, The Effort of Member States to Reduce Their Greenhouse Gas Emissions to Meet the Community’s Greenhouse Gas Emission Reduction Commitments up to 2020, available at <<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:140:0136:0148:EN:PDF>>.

<sup>72</sup> Council Directive 2009/28/EC, Promotion of the Use of Energy from Renewable Sources and Amending and Subsequently Repealing Directives 2001/77/EC and 2003/30/EC, available at <<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:140:0016:0062:EN:PDF>>.

<sup>73</sup> Council Directive 2009/31/EC, The Geological Storage of Carbon Dioxide and Amending Council Directive 85/337/EEC, European Parliament and Council Directives 2000/60/EC, 2001/80/EC, 2004/35/EC, 2006/12/EC, 2008/1/EC and Regulation (EC) No 1013/2006, available at <<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:140:0114:0135:EN:PDF>>.

<sup>74</sup> *State and Trends of the Carbon Market 2009* 1 World Bank (2009).

<sup>75</sup> See also the summary at Jan H Jans and Hans HB Vedder, *European Environmental Law* 385-388 (2008).

which has a volume equal to even 1% of the EU ETS. The Scheme's position of primacy will remain unchallenged unless and until a federal US scheme is established.<sup>76</sup>

For all its detailed provisions and dominance of the global carbon market, the fact remains that this regime poses a risk to the international competitiveness of the European Union. The European Union is alone amongst the major emitters to subject its industrial sectors to the strictures of mitigation efforts up to and well beyond the Kyoto standard. As noted by Morgera et al. (supra note 70) the European Union has been well aware of such competitiveness considerations, and a significant function of the climate and energy package has been to minimize carbon leakage. In a pre-legislative statement issued in 2008, the European Commission stated that:

In the event that other developed countries and other major emitters of greenhouse gases do not participate in an international agreement that will achieve the objective of limiting global temperature increase to 2°C, certain energy-intensive sectors and sub-sectors in the Community subject to international competition could be exposed to the risk of carbon leakage. This could undermine the environmental integrity and benefit of actions by the Community.<sup>77</sup>

The Commission has subsequently listed sectors that it determined to be vulnerable to leakage,<sup>78</sup> with these sectors to be protected from leakage by a free grant of the entirety of their allowances. Further, as an alternative, the possibility of a "carbon equalisation system" (as described above) was discussed.<sup>79</sup> These proposals, as well as the post-Copenhagen review mechanism, are contained in Article 25 of Directive 2009/29/EC, which is the Directive that amended the original ETS Directive<sup>80</sup> "so as to improve and extend the greenhouse gas emission allowance trading scheme of the Community". The Article is extracted below:

The Commission should therefore review the situation by 30 June 2010 ... the Commission should identify which energy-intensive industry sectors or subsectors are likely to be subject to carbon leakage [and] base its analysis on the assessment of the inability of industries to pass on the cost of required allowances in product prices without significant loss of market share to installations outside the Community which do not take comparable action to reduce their emissions. *Energy intensive industries which are determined to be exposed to a significant risk of carbon leakage could receive a higher amount of free allocation or an effective carbon equalisation system could be introduced with a view to putting installations from the Community which are at significant risk of carbon leakage and those from third countries on a comparable footing. Such a system could apply requirements to importers that would be no less favourable than those applicable to*

<sup>76</sup> Supra note 45. The analysis of the Community Courts' case law relating to the EU ETS therein is built on and extended in the present section.

<sup>77</sup> COM(2008) 16, Proposal for a Directive of the European Parliament and of the Council amending Directive 2008/87/EC so as to improve and extend the greenhouse gas emission allowance trading system of the Community, cited in Morgera et al., supra note 70.

<sup>78</sup> Commission Decision of 24 December 2009 determining, pursuant to Directive 2003/87/EC of the European Parliament and of the Council, a list of sectors and subsectors which are deemed to be exposed to a significant risk of carbon leakage, OJ L 1, 5.1.2010, 10–18, cited in Morgera et al., supra note 70.

<sup>79</sup> See further the discussion in Morgera et al., supra note 70, at footnote 120 and attendant text.

<sup>80</sup> 2003/87/EC.

*installations within the Community, for example by requiring the surrender of allowances.* Any action taken would need to be in conformity with the principles of the UNFCCC, in particular the principle of common but differentiated responsibilities and respective capabilities, taking into account the particular situation of least developed countries (LDCs). It would also need to be in conformity with the international obligations of the Community, including the obligations under the WTO agreement.<sup>81</sup>

After the unsatisfactory outcome of the Copenhagen COP, and in accordance with the review procedure contained in Article 25, the Commission published its review in May 2010.<sup>82</sup> Here the Commission outlined the three broad tools available to it to address carbon leakage: support to energy-intensive industries through continued free allowances; adding to the costs of imports to compensate for the advantage of avoiding low-carbon policies; or taking measures to bring the rest of the world closer to EU levels of effort.<sup>83</sup> The first of these was viewed as “the most obvious way to provide further help to level the playing field”, although including imports into the ETS is also noted with approval.<sup>84</sup> The broader issue of trade policy and an open trading system is also considered. *Pace* certain critics,<sup>85</sup> the Commission expressly made allowance for the fact that “developed and developing country mitigation efforts will not run at the same pace”,<sup>86</sup> although whether the emerging policy will fully satisfy the requirements of the principle of common but differentiated responsibility will not be known before the full policy details are published.

The Commission also addressed the complications of creating a WTO-compliant BTA regime, with the suggestion that a scheme limited to a number of standardized commodities, such as steel or cement, would operate best, with each category of goods having a defined average EU carbon content, although the administrative burden would “be a difficult and protracted process”. Thus the Commission was of the opinion that, in the short term, the measures in the package addressing leakage were justified, further noting that the US proposal—at the time still alive—was to operate along similar lines, as discussed above.<sup>87</sup>

#### 4. Conclusion: An Argument That is Merely the Tip of the Iceberg

A very good case can be made to the effect that the sort of response to carbon leakage envisaged by the European Union manages to pick its way among the by-ways of WTO law such as to achieve compliance. Although the following argument focuses almost entirely on GATT XX

<sup>81</sup> Emphases added.

<sup>82</sup> COM(2010) 265 final. Communication from the Commission to the European Parliament, Council, the Economic and Social Committee and the Committee of the Regions, *Analysis of options to move beyond 20% greenhouse gas emission reductions and assessing the risk of carbon leakage*, 26.5.2010, cited in Morgera et al., *supra* note 70.

<sup>83</sup> *Ibid.*, at 11.

<sup>84</sup> *Ibid.*

<sup>85</sup> Biswajit Dhar and Kasturi Das, *The EU's Proposed Carbon Equalization System: Can It Be WTO Compliant*, 25 November 2009, available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1513231](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1513231) at 51.

<sup>86</sup> *Supra* note 78, at 12.

<sup>87</sup> *Ibid.*, at 12.

issues, it is also the case that a BTA on imported products, whose production does not face similar national emission limitations, could also be GATT-compliant. Article II.2(a) states that:

Nothing in this Article shall prevent any contracting party from imposing at any time on the importation of any product: (a) a charge equivalent to an internal tax imposed consistently with the provisions of paragraph 2 of Article III in respect of the like domestic product or in respect of an article from which the imported product has been manufactured or produced in whole or in part.

Again, this provision constitutes an exception to the obligations on the schedules of the concession system under Article II of GATT and, again, it contains many interpretative challenges to test the compatibility of a BTA on imports. Such a measure would have to apply to “like products” or to an “article” used during the manufacturing of the product.<sup>88</sup> On the meaning of “like products”, WTO law has an extensive jurisprudence and literature. Suffice to note that the different way that a product is manufactured in two states (Process and Production Methods—PPM) can lead to the products being deemed “different”, and as such excluding the application of Article II.2(a). However, this relationship between “likeness” of products and PPMs is further complicated by the distinction between product- and non-product-related PPMs. In the case of the latter, the final product does not physically incorporate the results of a PPM. A requirement that reduces GHG emissions in the manufacture of a certain good would lead to a non-product-related PPM. In the case of a dispute based on a BTA, the fact that the two compared products appear physically similar, would make it harder to consider them “unlike”, and thus there would be more ground for Article II.2(a) to apply. In turn, in the hypothetical case of import measures based on a PPM affecting some physical component of the final product, such a difference between products could amount to an “unlikeness” between the two, resulting in the impossibility of applying Article II.2(a). Such a distinction therefore reflects what the Appellate Body noted in *EU-Asbestos*: that the likeness of products entails a competitive relationship in the market.<sup>89</sup>

A second issue pertains to Article III(2):

The products of the territory of any contracting party imported into the territory of any other contracting party shall not be subject, directly or indirectly, to internal taxes or other internal charges of any kind in excess of those applied, directly or indirectly, to like domestic products. Moreover, no contracting party shall otherwise apply internal taxes or other internal charges to imported or domestic products in a manner contrary to the principles set forth in paragraph 1.

While the first sentence specifies that a BTA on imports may not be more onerous than the internal measure (in this case, ETS-quantified limitations) and is to apply only in the case of

<sup>88</sup> See Javier De Cendra, *Can Emissions Trading Schemes be Coupled with Border Tax Adjustments? An Analysis vis-à-vis WTO Law*, 15(2) RECIEL 131-145, at 141 (2006).

<sup>89</sup> *EC-Asbestos*, AB Rep. WT/DS135/AB/R, 12 March 2001, para. 98.

like products, the second phrase requires in addition that such a BTA shall not favour domestic production, where imported products are “directly competitive or substitutable”.<sup>90</sup>

From such obligations and exceptions it is, however, possible to unravel a set of stages to gauge the compatibility of a carbon BTA on imports with the GATT. Does the measure violate either MFN/NT principles or the exception of Article II.2(a)? If yes, then Article XX (b) or (g) may provide the basis to exempt the measure and thus make it compatible with the WTO. Although apparently straightforward, the complexity of the jurisprudence on the many issues involved makes the task very uncertain. However, it is likely that the EU regime would not fall foul of the requirement that taxes and charges on imports should not be applied “in excess” to taxes levied on *like domestic products* or on input articles, drawing on the distinction of PPMs. As far as GATT XX compliance is concerned, it is possible to fashion an argument that the three-stage test of *Shrimp-Turtle*—as further detailed in *Brazil-Tyres*—can accommodate a measure as envisaged above by the European Union.

The “inclusion” requirement is not completely straightforward, but either paragraph (g)<sup>91</sup> or paragraph (b)<sup>92</sup> could be expected to satisfy the threshold question. Certainly the latter would require fewer legal gymnastics, but the adoption of an “evolutionary” interpretation combined with reference to the relevant international conventions—the UNFCCC, the Kyoto Protocol, but also the CBD and others—would suggest that measures taken could be justified as falling under one or both headings. Less demanding may be the second limb, namely whether the measure is either necessary for, or relating to, the pursuit of the policy of emission-reductions. Given the portfolio of measures that the European Union is adopting and the risk that carbon leakage poses to them, the task of establishing a means-and-ends relationship between the BTA and the legitimate policy of emission-reductions ought to be observably close and real. The application of the measure in compliance with the Article XX chapeau is perhaps the most demanding element of the test for present purposes, but again, a reasonable argument can be made. The unilateral nature of the measure is, as we know, not fatal to its status. Rather, the issue at hand is whether the actual application of the measure is arbitrary and unjustifiable. Clearly the proposed EU scheme does not require exporting economies to adopt an emission-reduction scheme that is “essentially the same” as that of the European Union, as was the case in *Shrimp-Turtle*. Far from it, there are a range of positions they can take, ranging from instituting comparable emission-reduction measures domestically to compliance with a carbon-equalization scheme, as well as points in-between.

In conclusion, the legal compatibility of the BTA with WTO law is at the very least arguable. Space precludes a complete discussion of the issues,<sup>93</sup> but the argument here has sought to address

<sup>90</sup> This definition is contained in the Interpretative Note ad Article III Paragraph 2 of the GATT. See Tracey Epps and Andrew Green, *Reconciling Trade and Climate: How the WTO Can Help Address Climate Change*, at 92 (2010).

<sup>91</sup> “Exhaustible natural resources”, as in *Shrimp-Turtle*.

<sup>92</sup> “Measures necessary to protect human, animal or plant life or health”, as in *Brazil-Tyres*.

<sup>93</sup> For a good, general introduction to the broader debates and a comprehensive literature review, see *Symposium on Trade and Climate Changes – Special Issue* (T. Brewer, ed.), 33(6) *The World Economy*, 2010.

key questions as to legal classification and the availability of the Article XX exemptions. Even assuming that such exemptions are available, the issue remains as to the policy wisdom of BTAs. Are these policies likely to encourage the engagement of non-Annex I parties and persuade their industries to adopt emission-reduction methods, even on a differentiated basis? That will very much remain an open question, with much depending on the timing of the adoption of such policies. Moreover, if the adoption of BTAs were to generate a spate of complaints against the European Union under the DSU, its persuasive, encouraging, qualities would appear to be somewhat limited. The use of the BTA has been described as law operating as a “regulatory default penalty”.<sup>94</sup> Such penalties, or legal arrangements, are applicable only in the case of failure to conform to new governance demands—higher emission-reduction regimes, in this case. The default position is set for the purpose of inducing parties to contract out of it. As such, argue de Burca and Scott, “Penalty defaults are presented as ‘action-forcing’,” and there are “numerous examples in the sphere of US environmental governance”, such as the clean-air example, “whereby the threat of federal intervention serves to mobilise states in their elaboration of clean air implementation plans”. This regulatory approach can be seen as a pluralist departure (an unwelcome one) from the European Union’s traditionally constitutionalist approach to the international legal order.<sup>95</sup>

<sup>94</sup> Grainne de Burca and Joanne Scott, *New Governance, Law and Constitutionalism*, in *Law and New Approaches to Governance in the EU and US*, 1-14 (Grainne de Burca and Joanne Scott, eds., 2006).

<sup>95</sup> For an extended discussion of that debate see Grainne de Burca, *The European Court of Justice and the International Legal Order After Kadi*, 51 *Harvard Journal of International Law*, 1 (Winter, 2010).